

CLAIMS

What is claimed is:

1 1. A method for use with a rotating storage device, said rotating storage device
2 comprising a storage medium driven to rotate, a head for reading and writing data on said
3 storage medium, and a ramped loading mechanism on which said head is stored, said
4 method comprising the steps of:

5 loading said head from said ramped loading mechanism onto said storage
6 medium;

7 reading location information stored in said storage medium via said head; and

8 retaining a location of said head for a predetermined period above a track of a
9 region other than a valid storage region of said storage medium after successfully reading
10 said location information.

1 2. The method according to the claim 1, wherein said track is positioned so that an
2 air bearing surface (ABS) of said head does not hang over said valid storage area.

1 3. The method according to the claim 2, wherein said control method further
2 comprises the steps of:

3 moving said head to an inside of said storage medium; and

4 moving said head to the outside of said storage medium;

5 such that a speed of moving to the outside of said head is greater than the speed
6 of moving to the inside.

1 4. The method according to the claim 1, wherein a combination of said step for
2 moving to the inside said step of moving to the outside is repeated for several times.

1 5. A control method for the rotating storage device, said rotating storage device
2 comprising a storage medium driven to rotate and a read/write head for information on
3 said storage medium, said control method comprising the steps of:

4 performing writing action to write information to said storage medium;

5 referencing to a defect list stored in a storage area provided in elsewhere of said
6 rotating storage device to judge whether the track having the sector into which said write
7 has been done or an adjacent track or a nearby track of said track contains a defect; and

8 verifying said write if the result of said judgment is true.

1 6. A control method for a rotating storage device comprising a storage medium
2 driven to rotate and a read/write head for information on said storage medium; said
3 control method comprising steps of;

4 performing writing action to write information to said storage medium;

5 reading a gain value or an amplitude value of an automatic gain circuit for
6 amplifying a signal via said head;

7 calculating dispersion of said signal from said head using said gain value or said
8 amplitude value;

determining whether a predetermined threshold value is exceeded by comparing a measured value stored in the dispersion table recorded in elsewhere of said storage region in said rotating storage device and a dispersion value obtained from said calculation; and

verifying said write when the result of said judgment is true.

7. A control method for a rotating storage device comprising a storage medium driven to rotate and read/write head for information on said storage medium, said control method comprising the steps of;

performing writing action to write information to said storage medium;

determining whether said write operation is done within a certain period starting from immediately after loading said head on said storage medium or within a time required for processing a predetermined number of commands; and

verifying said write when a result of said determination is true.

8. A rotating storage device comprising:

a head to read and write information on said storage medium;

a ramped loading mechanism for loading said head on said storage medium and for retaining said head;

5 means for reading position information stored in said storage medium through
6 said head and for controlling a relative location to said storage medium of said head; and

7 means for retaining a position of said head above a track of an area other than a
8 valid storage area on said storage medium for a certain period.

1 9. The rotating storage device according to the claim 8 wherein said track is
2 positioned so that an air bearing surface (ABS) does not hang over said valid storage
3 area.

1 10. The rotating storage device according to the claim 9, wherein said rotating storage
2 device further comprising;

3 means for moving said head to the inside of said storage medium;

4 means moving said head to the outside of said storage medium at a greater speed
5 than that of moving said head to inside and;

6 means for repeating said moving to the inside and outside.

1 11. A rotating storage device comprising:

2 a storage medium driven to rotate;

3 a read/write head for information on said storage medium, a means to read
4 information onto said storage medium;

5 a defect list storing defective sector information;

6 means for determining whether said defective sector is contained in a track
7 containing a sector on which said write has been done or a track adjacent to or nearby
8 said track by referencing to said defect list; and

9 means for verifying said write when a result of said judgment is true.

1 12. A rotating storage device comprising:

2 a storage medium driven to rotate;

3 a read/write head for information on said storage medium; means for writing
4 information onto said storage medium; means for reading amplitude information of a
5 gain value of an automatic gain circuit for amplifying a signal via said head or an
6 amplitude value of said signal;

7 means for calculating dispersion of a signal of said head from multiple said gain
8 values or amplitude value;

9 a dispersion table containing dispersions of signals on said head individually
10 stored in divided areas on said storage medium;

11 means to judge whether a predetermined threshold value is exceeded by
12 comparing a value in said dispersion table and a dispersion value obtained by said
13 calculation; and

14 means to verify said write when a result of said judgment is true.

1 13. A rotating storage device comprising: